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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,596	11/07/2001	Alex E. Henderson	21526-05579	8121

7590 11/14/2003

Alexa Le  
Intel Corporation  
Santa Clara Four Building (SC4)  
625 Walsh Avenue  
Santa Clara, CA 95052-8119

EXAMINER

QURESHI, AFSAR M

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 11/14/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.



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**Office Action Summary**

Application No.

10/005,596

Applicant(s)

HENDERSON ET AL.

Examiner

Afsar M Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,12,14,17 and 20 is/are rejected.
- 7) ☒ Claim(s) 8,10,11,13,15,16,18,19,21 and 22 is/are objected to.
- 8) ☒ Claim(s) 23 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-22, drawn to multicasting, classified in class 370, subclass 392.
  - II. Claim 23, drawn to queuing, classified in class 370, subclass 412.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because both combinations have different operations different functions and effects. The subcombination has separate utility such as creating session lock queues; queue flush and queue destroy.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Kerry Tweet on 9/12/2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-22. *Affirmation of this election must be made by applicant in replying to this Office action.* Claim 23 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, 9, 12, 14, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michels et al. (US 6,161,144).

7. Claims 1-4, 12 and 17. Michels et al. ('Michels' hereinafter) disclose a network switching device 50 (figure 3), receiving network frames and passing the frames to the plurality of search engines 66... (*Search resources*). The search engines determine ports for frames (see fig. 5, also see col. 1, lines 55-61) and transmit the search response to the forwarding ports.

Michels does not specifically disclose a parser generating packet search request.

However, as one of ordinary skill in the art would realize that any router, switch or

network (see figure 3) can be utilized for generating and forwarding a search request via media interface 56 (fig.3). As to claims 3 and 4, Michels further discloses that media interface 56 reformats the frames in response to modification request form the network (see col. 4, lines 46-65).

Claims 5-6. Michels discloses a management processor coupled to search engines that maintains the lookup table in memories 58, 70 (fig.3) wherein search, by search engine, is performed depending on entries in the lookup table (*shortest queue*).

As to claim 6, already discussed that the media interface 56 allows the search engine to transmit the modified frames to particular network depending on decision logic 72 (col. 6, lines 29-57).

Claim 7. All the limitations, including packet resources (network) are already discussed in the rejection of claim1 above.

Claim 9. Network receiving packets via media interface 56 is already discussed in the rejection of claim1 above.

Claim 14. As discussed above forwarding decision logic 72 (fig.3) receives packet response form search engine (second means) and forwards the frames to the requested ports (see col. 6, lines 20-28).

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Claim 20. As discussed in the rejection of claim 1 above, the network switching device 50, disclosed by Michels, is used to transmit the packet response from the packet resource to the network (see figure 5).

***Allowable Subject Matter***

8. Claims 8, 10, 11, 13, 15, 16, 18, 19, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Muller et al.** (US 5,938,736) disclose switch fabric including multiplayer switch search engine. The switch engine is configured to schedule and perform accesses to the forwarding database and to transfer data packets to the destination ports.

**Beauvois** (US 6,556,671) discloses routing system using parsed input and performs a data search then routes the communication events to the appropriate ports.

**Hendel et al.** (US 5,920,566) disclose a routing system configured to identify multicast packets for routing purposes, modify the packets and forward the packets to the next loop.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M Qureshi whose telephone number is (703) 308 8542. The examiner can normally be reached on Compressed (9 Hrs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (703) 305 4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305 4700.



Afsar M Qureshi  
Examiner  
Art Unit 2667